

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A method of assessing *ex vivo* the titre of fertility-relevant autoantibodies of a mammalian female, comprising the steps:

[[-]] presentation of a molecule which binds to an idiotypic of the fertility-relevant autoantibody, and

[[-]] determining the amount of autoantibody being bound by said molecule from a sample of a body fluid of said mammalian female.
2. (original) The method as claimed in claim 1, wherein said mammalian female is a human female.
3. (currently amended) The method as claimed in ~~claims 1-2~~ claim 1, wherein said body fluid is blood, serum, blood plasma or saliva.
4. (currently amended) The method as claimed in ~~claims 1-3~~ claim 1, wherein said molecule capable of binding to the idiotypic of the fertility-relevant autoantibody is an oligo- or polypeptide.
5. (currently amended) The method as claimed in ~~claims 1-4~~ claim 4, wherein the oligopeptide is a peptide consisting of less than 40[[],] ~~most preferably less than 20~~ amino acids.
6. (currently amended) The method as claimed in ~~claims 1-5~~ claim 4, wherein the polypeptide is a naturally occurring protein[[],] ~~either being isolated from its natural source or being expressed in a recombinant host system, the latter thereby including modifications of the sequence by addition of sequence TAG's to facilitate purification or detection of the protein.~~

7. (currently amended) The method as claimed in ~~claims 1-6~~ claim 5, wherein the ~~oligopeptides according to claim 5 are being~~ oligopeptide is part of the sequence of a naturally occurring polypeptide ~~the polypeptide according to claim 6~~ meaning that the sequence of the oligopeptide is occurring in the sequence of the polypeptide.
8. (currently amended) The method as claimed in ~~claims 1-7~~ claim 4, wherein the amino acid sequence of the polypeptides is selected from the sequences of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049).
9. (currently amended) The method as claimed in ~~claims 1-9~~ claim 1, wherein fertility-relevant autoantibodies being bound to the anti-idiotypic molecule are detected by an ELISA protocol using secondary antibodies being labelled with a detectable moiety such as an enzyme, a fluorochrome or biotin.
10. (original) An oligopeptide selected from one of the sequences (SEQ ID No. 1-8)

VYKSPNAYTLFS (Seq ID No. 1)
QGLPAPQSYSRI (Seq ID No. 5)
RPEPQGAYLEQG (Seq ID No. 2)
NSSYSPSLLESG (Seq ID No. 3)
DQYIQQAHRSHI (Seq ID No. 4)
KQASNLTDMHYP (Seq ID No. 6)
AQPWNWTSRLSLP (Seq ID No. 7)
HVNPHLHVHAWD (Seq ID No. 8)

or retro-inverso derivatives of these peptide sequences.

11. (currently amended) Oligopeptides which are derivatives, fragments and/or homologues of the oligopeptides of claim 10, which differ from the oligopeptides in claim 10 such that

[[•]] the oligopeptide amino acid sequence is extended at the amino-terminus and/or the carboxy-terminus by either up to 5 amino acids per terminus, and/or

[[•]] in the homologous oligopeptides up to 3 amino acids are substituted by other amino acids, and/or

[[•]] the fragments lack 1 or 2 amino acids at the N-or C-terminus, and/or

[[•]] the oligopeptides are derivatized for detection by modifications including biotinylation, labelling by fluorochromes or radiolabelling;

or Retro-Inverso derivatives of these derivatives, fragments or homologues.

12. (original) Oligopeptides comprising 8 to 50 amino acids which are fragments of the sequences of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049).
13. (currently amended) Dimers, trimers or multimers of oligopeptides of ~~any of claims 10 to 12~~ claim 10.
14. (currently amended) A medicament or pharmaceutical preparation comprising at least one oligopeptide of ~~any of claims 10 to 12~~ claim 10, derivatives, fragments and/or homologues thereof, dimers, trimers or multimers of ~~oligopeptides according to claim 13 thereof~~, or a polypeptide having the sequence of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS13(gi:21265049), or a polypeptide comprising 8 to 50 amino acids which are fragments of the sequences of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049).
15. (currently amended) A diagnostic comprising at least one oligopeptide of ~~any of claims 10 to 12~~ claim 10, derivatives, fragments and/or homologues thereof, dimers, trimers or multimers of ~~oligopeptides according to claim 13 thereof~~, or a

polypeptide having the sequence of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049), or a polypeptide comprising 8 to 50 amino acids which are fragments of the sequences of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049).

16. (currently amended) A method Use of a medicament of claim 14 for the treatment of fertility disorders, comprising administering the medicament of claim 14 to a patient in need thereof.
17. (currently amended) A method of diagnosing Use of diagnostic of claim 15 as a diagnostic of fertility disorders or pregnancy complications, comprising testing a patient with the diagnostic of claim 15.
18. (currently amended) The method of ~~any of claims 4 to 9~~ claim 4, wherein the oligo- or polypeptide is ~~any of claims 10 to 12~~ one of the sequences (SEQ ID No. 1-8)

VYKSPNAYTLFS (Seq ID No. 1)

QGLPAPQSYSRI (Seq ID No. 5)

RPEPQGAYLEQG (Seq ID No. 2)

NSSYSPSLLESG (Seq ID No. 3)

DQYIQQAHRSHI (Seq ID No. 4)

KQASNLTDMHYP (Seq ID No. 6)

AQPNWTSLRSLP (Seq ID No. 7)

HVNPHLHVHAWD (Seq ID No. 8)

or retro-inverso derivatives of these peptide sequences, or derivatives, fragments and/or homologues thereof, or a dimer, trimer or multimer of claim 13 thereof, or a polypeptide having the sequence of pregnancy-associated plasma protein A

(PAPP-A; gi:38045915) or from ADAM-TS13(gi:21265049), or a polypeptide comprising 8 to 50 amino acids which are fragments of the sequences of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049).

19. (currently amended) A diagnostic kit providing all reagents, standards, controls and accessories necessary to perform a method according to ~~claims 1-9 and 17~~ claim 1.
20. (currently amended) ~~Use of A method for contraception or inducing sterility comprising administering to a patient in need thereof a pharmaceutical preparation containing at least one oligopeptide of any of claims 10 to 12~~ claim 10, derivatives, fragments and/or homologues thereof, dimers, trimers or multimers of oligopeptides according to claim 13 thereof, or a polypeptide having the sequence of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049), or a polypeptide comprising 8 to 50 amino acids which are fragments of the sequences of pregnancy-associated plasma protein A (PAPP-A; gi:38045915) or from ADAM-TS 13 (gi:21265049) for ~~contraception or inducing sterility.~~
21. (new) The method as claimed in claim 5, wherein the oligopeptide is a peptide consisting of less than 20 amino acids.
22. (new) The method as claimed in claim 6, wherein the polypeptide is isolated from its natural source or expressed in a recombinant host system, the latter thereby including modifications of the sequence by addition of sequence TAG's to facilitate purification or detection of the protein.
23. (new) Dimers, trimers or multimers of oligopeptides of claim 11.
24. (new) Dimers, trimers or multimers of oligopeptides of claim 12.

25. (new) A diagnostic kit providing all reagents, standards, controls and accessories necessary to perform a method according to claim 17.